

Saint Louis Audubon

Bulletin

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FOCUS ON YOUR ENVIRONMENT

Some years ago the journalist, James J. Kilpatrick, made these observations:

"One of the most serious problems in American society goes to the quality of life in the world around us. Our rivers and lakes are dying of pollution. Our greatest cities stifle in smog. Our littered streets insult the eye. Concern mounts at the residual damage done to man's environment by such pesticides as DDT. Year by year, our loveliest countrysides are yielded up.

The problem essentially is a problem of conservation- of conserving some of the greatest values of America; and conservatives, of all people, ought to be in the vanguard of the fight".

Under the basic environmental laws we have been taking specific affirmative action based on broad conservative principles to protect public health and welfare- in particular, under the Clean Air and Water Acts. It is, of course, significant that billions of dollars are being spent by public and private institutions to comply with these new laws and to control pollution. It is estimated that clean water under the new 1972 Act, for example, will mean a total estimated outlay of \$18 billion by the Federal government for municipal sewage treatment plants by the end of fiscal 1977. But equally important are the pollutants that are being taken from air and water. An EPA analysis shows that by the statutory deadline of mid-1975, 90 million tons of particulate matter will be removed per year from the air, plus 25 million tons of sulfur dioxide. In addition, nearly two dozen of our nation's important rivers either have shown improvement or will do so as the result of the discharge permits that have been issued. Under this program, 95 percent of the major industrial wastewater dischargers are now under definite water clean-up schedules."

(The above taken from a speech by Russell E. Train, administrator of the EPA, before the National Wildlife Federation, March 15, 1975)

RICHARD PHILIP GROSSENHEIDER

1908 - 1975

To his friends he was known as "Dick", and they found him compassionate, kind, considerate, a patient listener, a thorough teacher, gentle, enthusiastic, and always seeking new knowledge to share with others. His zest for life extended to all creatures.

Born in St. Louis, November 5, 1908, from early childhood he was proud of his Missouri heritage. He attended Walnut Park School where his interest in nature was encouraged by his teachers and older brothers. At Central High School Dick took additional courses in botany, drawing, painting and design. From 1929 until 1937 Dick was on the staff of the St. Louis Zoological Garden. He received a B. S. degree from the University of Michigan, and took additional courses at the Universities of Missouri, Kansas and Washington University, and graduate studies at Cornell.

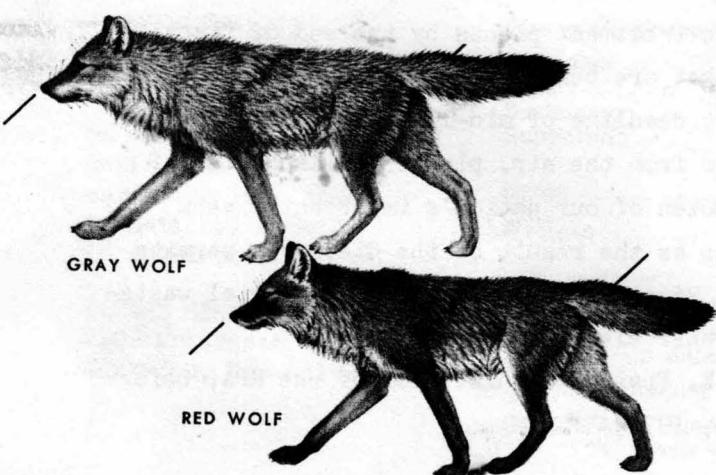
World War II interrupted his studies, but his knowledge and ability to manage animals and birds quickly placed him in the Signal Corps, training carrier pigeons as well as using them for subjects for his paintings. Dick went on to the southwest Pacific where many opportunities to paint wildlife presented themselves. After the war, Dick returned to Missouri and resumed his painting and pen and ink drawings, many of which appeared in distinguished publications.

Through the years he had many one-man shows and received countless awards, including the St. Louis Audubon Conservation Citation in 1956. Dick was a member of many local and national natural history organizations and a board member of the St. Louis Audubon Society, Zoological Society and Zoo Association, and past president of the Missouri Audubon Society and the E. P. Meiners Entomological Society.

In recent years Dick devoted much effort for the cause of endangered species, particularly mammals and specifically wolves of the world. The "Wolf Men", an internally televised documentary with three age groups of his hand-raised gray wolves was made by MGM.

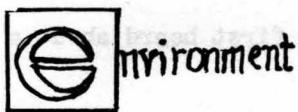
The work that Dick left will give enjoyment for generations. The curve of the muscles under the fur of a rabbit, the light in the eye of a flying squirrel and the whiskers of a white-footed mouse gave life to his animals. His tragic death, April 1, 1975, was a great loss to his many friends and a severe blow to the cause of conservation. His sister, in quoting the Scripture, said, "He may rest from his labors and his works do follow him."

J. Marshall Magner



A memorial for Dick is in the early planning stages. Envisioned is a study room where many of Dick's notebooks, sketches, etc., may be made available to future scholars and artists. Contributors of \$5.00 or more to this project will receive from Bill Groth a set of Grossenheider pen and ink prints of the otter, cougar, chipmunk and white-tailed deer.

Focus on the Environment



BETTY WILSON



NATIONAL COMMISSION ON WATER QUALITY

The National Commission on Water Quality was established by Congress to study the technological, economic, social and environmental impacts of the Federal Water Pollution Control Act Amendments of 1972.

The task of the National Commission is to determine how much the requirements of the law will cost in money, manpower, resources, energy and land, and what social and environmental changes it will bring about- and just as important is, what will happen if the provisions of the law are not carried out.

For the first time in the history of pollution control legislation a truly effective bill, the Federal Water Pollution Control Act Amendments of 1972, was passed by the Congress. The schedules for clean-up provided by the law necessarily do, and will, bring about improvement in water quality.

That many industrial and governmental interests regard expenditures to protect our waters as an obstacle to economic recovery is discouraging and unrealistic. In the St. Louis area there are many unemployed construction workers. A number of plans are ready to be implemented. Clean-up funds will provide jobs for workers both directly and indirectly. There are significant economic arguments in favor of protecting our water environment.

Citizens are invited to comment to the National Commission on Water Quality, P. O. Box 19266, Washington, D. C. 20036. Governmental and industrial groups are commenting to the National Commission. In many cases they are asking for weakening amendments. It's up to the citizens to be counted in favor of the water clean-up program.

CITIZENS' COMMITTEE FOR CONSERVATION PLANS NEW CAMPAIGN

The CCC will begin an initiative petition campaign in July to enable all Missourians to vote on a one-eighth of one percent sales tax which will be used to support the conservation expansion program.

The Committee, led by the Conservation Federation, will again be seeking to provide funding for the "Design for Conservation", a plan for Missouri's conservation future drawn by the Department of Conservation. In 1971 and 1972 the Committee gathered 164,000 signatures on petitions toward this end, but the effort failed when the petition was ruled invalid because of technical errors in drafting. In that effort, the CCC sought to fund the measure through a 1¢ per bottle soft drink tax.

According to G. Andy Runge, Chairman of the Conservation Commission, "it's the most important conservation happening in our lifetime". The Commission is on record as being 100% behind the citizen effort seeking a one-eighth of one percent sales tax for conservation. "Land," says Runge, "is an increasingly scarce commodity and Missouri is notably public-land-poor compared to every other well-known conservation oriented state. We don't even come close to having enough public land to satisfy the demands of many outdoor enthusiasts."

Set up on a twenty year plan, the early emphasis will be on buying land for wildlife, conservation education and natural values. Later emphasis will shift to management of the lands for maximum benefit in the accomplishment of conservation goals.

GREAT HORNED OWLS

Warren Lammert

It must have been in early March when I first heard about a Great Horned Owl nesting in the Busch Wildlife Area.

Edgar took me out the next weekend to see this monarch of the woods sitting high above the ground in a huge sycamore tree. As we drove up she looked down at us as if she were a queen with two snow white babies.

On another day there lay before her something white that might have been a rabbit or a young owl. Not long afterwards I took Henrietta there and as we set up our scope we saw two baby owls, a fuzzy buff color. Since then I have been going out to see them weekly.

On each visit they seem to darken in color, their growth rate phenomenal. Their ears now stand up and the nest seems filled by them. On each visit when I first arrive they both stand up and peer down at me, and then as I set up my gear to photograph them usually one sits down behind the other and they seem to go to sleep. I suppose they are getting used to me now, but the more I see of them the more interested I become.

Great Horned Owls do not build nests -- they borrow from red tailed hawks or crows. Nesting takes place the latter part of January and in February. Incubation lasts from 34 to 36 days. Young owls break out of their shells, are downy white, and for several days are unable to hold up their heads. They are the size of a baby chick, their eyes are not open for a few days. Their voices are feeble, uttering cries weak at first but soon loud and persistent from hunger.

When we first saw them they must have been two weeks old, soon they turned a mottled fluffy brown color. During the next four to seven weeks they cannot fly, until their juvenile or first contour plumage has grown. During this fledgling period and possibly for some weeks longer they are wholly dependent on the adults for food.

One night we had winds up to 59 miles an hour. I wondered what had happened to them nesting 75 feet about ground. I rushed out to see. Nothing had changed except the young owls had grown.

Another day the temperature dropped to 5' above. Again I went out to find the female sitting on top of her young. From time to time the nestlings would poke a head out but they seemed fine.

As the young owls grew larger I wondered how the adults could find enough food for their ravenous brood.

As these birds nest so early when our weather is coldest they must sustain themselves on rabbits and mice, until later when the Song Birds come here on their migrations. At that time grasses and shrubs give relief to the mice and rabbits.

Song Birds live a dangerous life until arboreal cover protects them and dense foliage encloses the nesting birds. However, as the crocuses inch through the snow and the earth warms, insects, grubs and caterpillars appear, and food is plentiful, for there are frogs, snakes and lizards fresh from hibernation. At this time, when the young owls needs are at a peak, crows start nesting. A pair

of Great Horned Owls usually have a hunting area staked out before nesting. It is in this area that young crows become food for the owls.

As you know, young crows are white when hatched, and this makes it easy for the adult owls to take as many as 60% of all the young crows in their hunting area.

Thus, at a time when protein is needed most the crows furnish it. Black crows are hard to find. Therefore, when young crows turn black, the young owls are usually old enough to hunt on their own.

Thus, the story of these early nesting birds, facing the most rugged part of the winter, often brooding with snow sometimes covering the female. Even in the coldest weather she seems able to keep the center part of the nest dry and warm.

As the young hunt they find a variety of food, including rabbits and skunks as well. There is no more feared predator in the woods than *Bubo virginianus*.

As I am writing this article in early April, the young are still on the nest, high above the earth, growing and waiting to test their wings, to start life on their own, to take their part in keeping natures balance.

Birds like this have a life story that is shocking in some ways but necessary in another. I determined, as I watched these owls, to find out more about them. Seeing them grow has in itself been a stimulating experience.





FROM MY NATURE NOTEBOOK

"THE JOYS OF WINTER"

by

Millie Blaha

Winter in our part of southwestern North Carolina, at 3,000 feet elevation, bordering on South Carolina and Georgia and lying in the foothills of the Blue Ridge Mountains, is one of the most exciting times of the year. It is then that the weather is most variable. There can be comforting fogs, an occasional ice storm which transforms the landscape into a crystal fairyland, an infrequent snowstorm which etches the branches of every tree and shrub in white outlines, or there can be gentle rains which bring a freshness to the grays and browns of the denuded deciduous trees and varying greens of the pines, hemlocks, rhododendrons and laurel.

It is in winter that the naked hardwood forest bares its secrets. Moss covered stumps and fallen logs seem to be displaying their emerald jewels proudly against a carpet of satiny brown leaves.

Bird life is much more easily seen — a nuthatch storing a sunflower seed in the crevice of an oak tree, a downy or hairy woodpecker dining on suet, a brown creeper searching for insects in the bark of a maple or sourwood, or a golden-crowned kinglet catching insects on the wing on a warm winter's day.

The distinctive drumming of the pileated woodpecker lets us know that it is searching for the larvae of wood-boring beetles high up in the trees. This largest of all woodpeckers has white stripes which separates its scarlet-crested head from its solid black back. As it flies to another tree, its white underwings edged in black can be seen. Soon it is joined by its mate.

Raspberry colored male purple finches perch like bird ornaments on a leafless gray laurel branch mounted on our deck railing. When one turns his back to us, he displays his brightly colored raspberry rump. The mates of these winter visitors which invade the feeders like a starving army, are heavily streaked with brown and look much like a sparrow except for their heavier beak and deeper tail notch.

The black-capped Carolina chickadee, the tufted titmouse and white-breasted nuthatch which are with us year round are outnumbered by the flock of purple finches and have to wait their turn at all the feeders. They especially enjoy the security of a feeder fashioned from a Mason jar which admits only these smaller sized birds and which thus far has proved squirrel proof.

Plump juncos, ranging from all shades of gray to black and white, and colorful cardinals scratch the ground for sunflower tidbits discarded by the gluttonous purple finches. Occasionally these ground feeders will come to the deck and to the peanut butter feeder which is suspended on a green plastic clothesline about 25 feet above ground level.

The Carolina wren curiously inspects the cozy nooks and corners around the house, peeks into the sliding doors and a second later is on the black gum log feeder like a center-stage performer with its expressive tail bobbing up and down. The wren's curious calls and variety of whistles are some of the few bird songs heard year round.

The sweet call of the goldfinch in its olive drab winter dress, surprises us, for this is the first time we have seen it at our feeder this winter.

Because acorns were so plentiful this year, only occasionally does a mourning dove seek handouts from us.

The most welcome visitor is the bluebird. Though much smaller than its cousin, the robin, it is sometimes called the "blue robin." Both have orange red breasts and both are members of the thrush family, but there the resemblance of these two birds ends. The cerulean blue head, back and wings of the male bluebird is especially brilliant in the sunshine and seems to reflect the color of the blue winter sky. As he sits on one of the eight perches of the peanut butter feeder eating heartily, he occasionally stops momentarily as though to show off his bright cinnamon-orange breast and white underparts. Several females, paler blue-gray above and with aqua blue rumps and only a tinge of orange on their breasts, are permitted to occupy some of the empty perches. Three or four more males patiently wait on the green plastic clothes line for their turn to feed. What a sight — a feeder full of blue birds with an occasional chickadee, titmouse, or junco permitted to dine with them!

Much of the Bluebirds' animal food is not easily available, especially when it is cold — beetles, grasshoppers, crickets, caterpillars, spiders, and centipedes.

The fruit of the dogwood, holly, pokeberry, mistletoe, serviceberry and huckleberry have long since been eaten by bluebirds and other birds because this has been an unusually cold winter. Perhaps this is why the bluebirds come regularly to partake of the high-protein peanut butter which we have mixed with cornmeal, bacon fat, sesame seeds and herb-seasoned bread crumbs. On warm days, perching birds with rounded shoulders, can be seen keeping a keen eye on the ground for an unsuspecting insect which might have come out of its winter hiding place.

A bird bath, handshaped from left-over cement and crushed stone, sometimes freezes over, but warm water melts the ice into refreshing drinking water for the bluebirds and all other visitors which frequent our feeders.

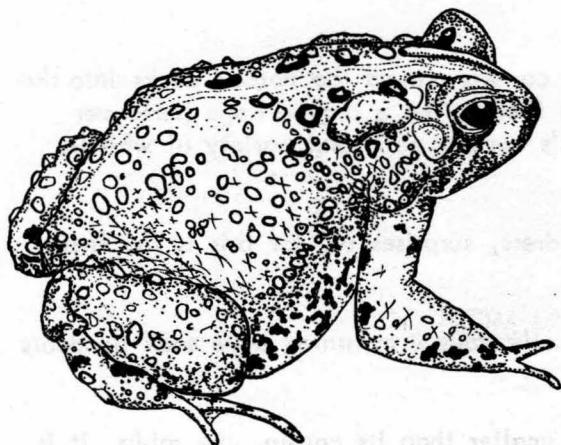
Deserted woodpecker holes serve as night-time shelter or protection from daytime winter weather for our brilliant blue visitors. Suddenly we are aware of their soft, gentle purling warbling, a prelude to their spring mating. Soon they will leave our higher elevation for the broad expanse of the meadows and open woods several hundred feet lower where nesting sites and food are more plentiful.

Until Spring comes, we shall count bluebirds in winter as one of life's extras.

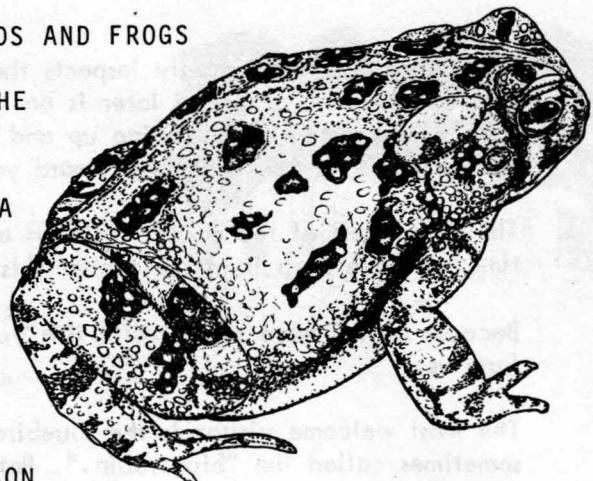
FAMILIAR TOADS AND FROGS

OF THE

ST. LOUIS AREA



American Toad
2 to 3½ inches



Fowler's Toad
2 to 3 inches

BY TOM R. JOHNSON

Because of its geographic location, Missouri has a rather rich assortment of amphibians (salamanders, toads and frogs). Of the 25 species and subspecies of toads and frogs which are found in Missouri, at least a dozen are found in or near the St. Louis area. Eight of the more common species are discussed here.

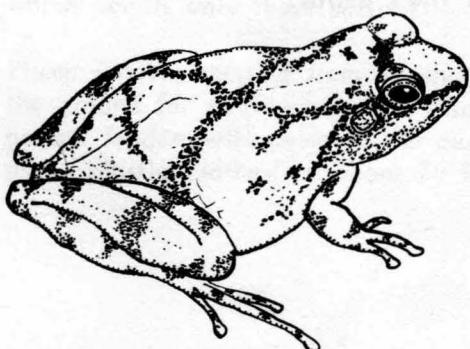
Family Bufonidae (toads)

American Toad (Bufo americanus americanus) 2 to 3½ inches. Usually a brown color, belly a creamy white with numerous dark spots. Two large kidney-shaped glands (parotid glands) are located behind the head. The dark spots on the back encircle 1 or 2 warts, but seldom more. Found in wooded areas, gardens, orchards, and along creeks.

Fowler's Toad (Bufo woodhousei fowleri) 2 to 3 inches. This toad is usually gray or brownish-gray. The belly is white, and there may be a large dark spot on the "chest" just below the throat. The parotid glands are normally oblong in shape. The dark spots on the back may encircle from 1 to 6 or more warts. The Fowler's toad is a lowland animal, most frequently found in river bottoms and flood plains. Can often be found on large sand bars in the Missouri and Mississippi rivers. This toad often hybridizes with the American toad in our area.

Family Hylidae (treefrogs)

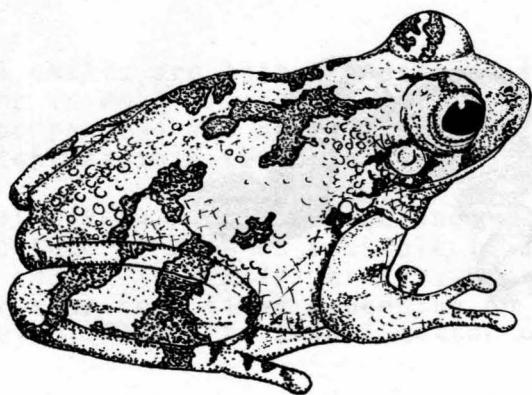
Blanchard's Cricket Frog (Acris crepitans blanchardi) 5/8 to 1 3/8 inches. A small ally of the treefrog family. The color may vary from yellow-tan to gray, to nearly black. A dark triangle is always present between the eyes. The belly white. Small warts may be present over much of the back. This small frog may be found at the edge of ponds, and in sandy or rocky areas along streams and rivers.



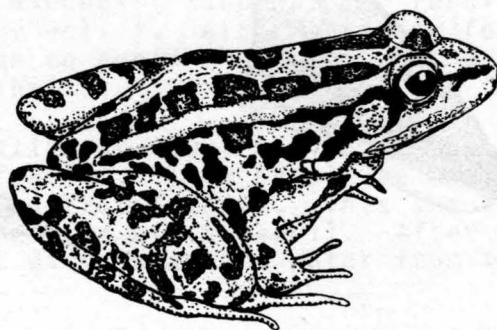
Northern Spring Peeper
3/4 to 1½ inches



Blanchard's Cricket Frog
5/8 to 1 3/8 inches



Eastern Gray Treefrog
1 $\frac{1}{2}$ to 2 inches



Pickerel Frog
1 3/4 to 3 inches

Northern Spring Peeper (*Hyla crucifer crucifer*) 3/4 to 1 1/2 inches. A light gray or tannish-gray frog, with a reddish-tan "cross" marking on the back. Very small toe pads are present. The high-pitched peeping call of this frog is heard early in the spring. These treefrogs are usually found in deep woods and wooded areas along creeks and rivers.

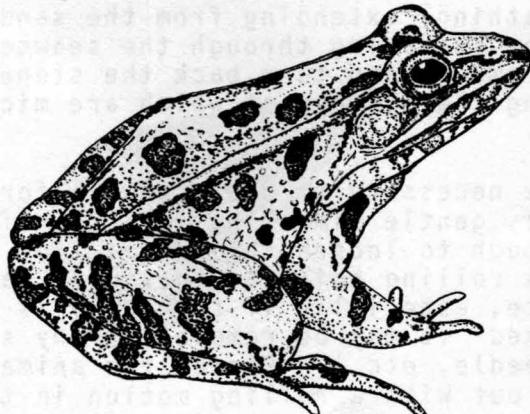
Eastern Gray Treefrog (*Hyla versicolor versicolor*) 1 1/2 to 2 inches. This is the "common" treefrog of our area. This species may change color from a pale gray-green to gray, to brownish-gray, to almost black. The belly is a plain white. Dark markings on the back may be a gray or brown color. The insides of the hind legs have a yellow-orange color. Found in wooded areas, near farm buildings and along creeks and rivers.

Family Ranidae (true frogs)

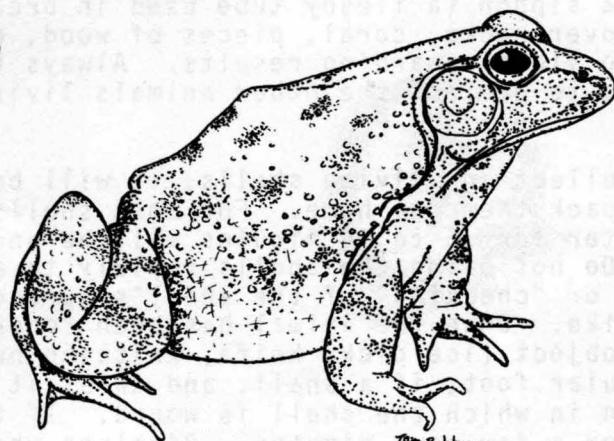
Pickerel Frog (*Rana palustris*) 1 3/4 to 3 inches. General coloration is a light tan, with pure white belly. There are usually two rows of squarish markings along the back. These markings may be reddish-brown or dark brown. The inside of the hind legs is a rich yellow-orange color. These frogs are often found near or inside caves, but may also be found along creeks, as well as near farm ponds.

Southern Leopard Frog (*Rana utricularia*) 2 to 3 $\frac{1}{2}$ inches. A light brown frog with at least some green present on the back. The belly is creamy white. Markings on the back are usually large and either rounded or oblong in shape. This frog is usually found along rivers, creeks, and in or near farm ponds.

Bullfrog (*Rana catesbeiana*) 3 $\frac{1}{2}$ to 6 inches. This large frog is well known in our area, and is collected by people who like to eat frog legs. The general coloration is green or tannish-green; the belly is white, with some gray spotting. The back, as well as the hind legs, may have some dark brown markings. The bullfrog spends most of its time in or very near the water. They make their home in rivers, creeks, ditches, ponds and lakes.

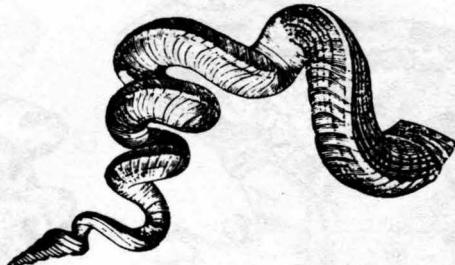
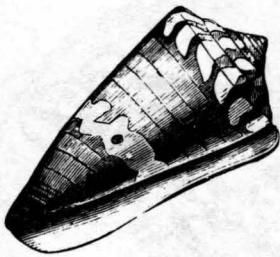


Southern Leopard Frog
2 to 3 $\frac{1}{2}$ inches



Bullfrog
3 $\frac{1}{2}$ to 6 inches

Tom R Johnson
1975



SUMMER SHELL COLLECTING

BY

George Karleskint, Jr.

As the warm weather approaches, most of us start thinking of vacations. For some, this will mean a trip to the beach to soak up the sun, swim in the surf and, of course, comb the beach. I'm sure everyone who has been to a beach has marvelled at the myriad of creatures that make their homes in the several different environments of beach, tidepool, and ocean. Hardly a person has visited a seashore without returning home laden with seashell souvenirs. For those of you who will be fortunate enough to vacation by the sea, I would like to offer the following hints on shell collecting.

Seashells are the homes of animals known as mollusks, a word that is derived from Latin meaning "soft-bodied". These animals use their shells as an external skeleton to support and protect their soft parts. The shells are very beautifully decorated and no other place can one find such exquisite colors, patterns, shapes and unending variety. Most beaches are strewn with the litter of broken and dead shells, but with a little searching one can discover the living shells.

Shell collecting requires only a container in which to place your catch, a small hand rake or shovel to overturn rocks and coral and dig in the sand, and some leisure time when you can explore the beach. For those who are more adventurous, a mask and a snorkel will help you explore an entirely new and exciting world in the shallow ocean waters.

Most mollusks are nocturnal animals and best results can be obtained at night with a good flashlight. During the day, the animals hide under rocks, or bury in the sand. At low tide, the sand-burrowers will leave telltale trails similar to the trails left by moles. Bivalves, or clams, can be located by looking for a siphon (a fleshy tube used in breathing) extending from the sand. Turning over rocks, coral, pieces of wood, or searching through the seaweed will also yield rewarding results. Always remember to turn back the stones or coral, to protect the other animals living there, many of which are microscopic.

If you collect any living shells, it will be necessary to clean them before you can pack them for home. For most shells, gentle simmering in a pot of fresh water for 5 to 10 minutes will be enough to loosen the animal from its shell. Do not bring the shells rapidly to a rolling boil, as this will cause cracking or "checking" of the shell's surface, especially if the shell is porcelain-like. Once the animal has been "cooked" it may be removed by any sharp pointed object (ice pick, knife, knitting needle, etc.). Pierce the animal in its muscular foot, if a snail, and twist it out with a rolling motion in the direction in which the shell is wound. If the tissue offers resistance, boil gently for a few more minutes. Bivalves when boiled will open and the animal matter can be easily scraped out.

Very small shells are better preserved in alcohol (isopropyl or rubbing alcohol found in most drugstores will do very well). After three or four days they can be removed and dried. Dry outside to avoid the smell, but avoid direct sunlight as this tends to bleach the shells.

Shells that have a natural shine such as olive or cowry shells are best cleaned by placing them as soon as possible in a freezer. They should be frozen for 12 hours, thawed in a refrigerator, and then frozen again. This should be repeated three or four times depending on the size of the shell. After the final thawing, flush the animal matter out with luke-warm water from the tap.

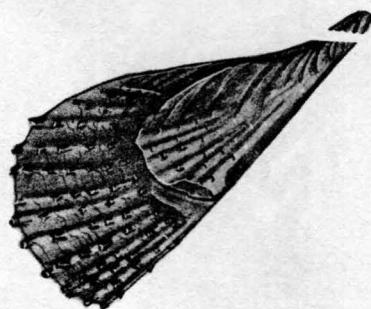
Many fine shell specimens contain hermit crabs. These can be removed by allowing them to sit in a container of fresh water to die. When they die, they will either come out completely or extend themselves far enough to allow easy removal. The addition of a tablespoon or two of Epsom salts will improve this technique.

An easy cleaning method if you have enough time is to bury the shells near an ant colony. The insects will gladly oblige you by doing an excellent job in a few days or two weeks, depending on the size and quantity of shells buried. One word of advice, make sure you mark where the shells are buried!

If you plan to use your shells for a collection or for trade, be sure to save the operculum or trapdoor found on some but not all snails. The operculum is a hard, usually horny or calcareous piece attached to the animal's foot which is used to close the opening when he crawls into his shell. It can be removed easily with a knife, especially if the animal has been previously boiled.

Few shells have a naturally shiny exterior. Olives, cowries, some cone shells, and some volutes are notable exceptions. Most shells are covered by a brown or olive green "skin" called periostracum. This can be easily removed by soaking them in a solution of liquid bleach. Approximately 1 cup of liquid bleach to 8 cups of warm water makes an excellent cleaning solution. Shells can be left in this solution several days if necessary. Some shells will require brushing with a stiff brush and a second soaking before they are clean. When the shell is clean it should be rinsed thoroughly in warm water and dried. If the shell looks a little dull after this treatment, rubbing with mineral oil will restore its sheen. DO NOT USE BLEACH SOLUTION ON NATURALLY SHINY SHELLS.

The shells are now ready to be placed in your collection or used for decoration. Shell collecting is a very popular hobby and there are many good books to aid the beginner in assembling a collection and identifying the catch. I hope this information will be useful to you summer beachcombers; and to those of you who will visit our beautiful beaches this summer, good shelling!





SUMMER READING FOR THE YOUNG

AND THE YOUNG IN HEART.

Television, we are often told, is usurping the role of books in the lives of young children. This need not be for children are interested in the same things you are. Here are some suggestions for a Happy Reading Summer.

FALCONS RETURN-

Restoring an Endangered Species by John Kaufmann and Heinz Meng

The current program of breeding peregrine falcons in captivity and returning them to the wild is the fascinating material of this report, which also includes background on falcons and falconry. Ages 12 and up--\$5.95

SNAILS

This nature-science survey gives facts about the structure, habits, habitats and varieties of snails, including the many ways in which they are useful to man. By Rene Martin. Ages 8 - 12. \$4.95

WILD ORPHAN BABIES: MAMMALS AND BIRDS-

Caring for them and setting them free. By William J. Webber, D.V.M.

Here is a comprehensive guide to the care of injured and/or orphaned mammals and birds. Ages 11 and up.

GUESS WHAT ROCKS DO

Beliefs and customs about rocks and minerals, their uses, scientific and practical value, with suggestions for collecting. Written by Barbara Rinkoff and illustrated in three colors by Leslie Morrill. Ages 4-7 and priced \$4.95.

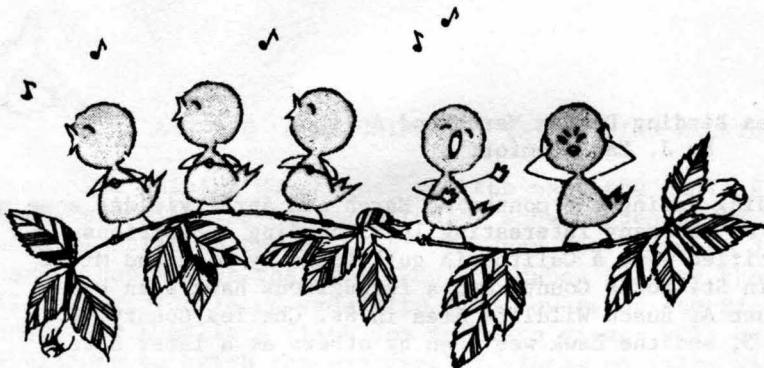
COYOTES, LAST ANIMALS ON EARTH?

Characteristics and behavior of the coyote, from Indian lore to current prospects for the survival of this controversial animal. Ages 10 up. Written by Harold E. Thomas. \$5.25.

THE WORLD OF MOSSES

by Bette J. Davis and illustrated by the author. This is a good study of mosses and moss-like plants, where and how they grow, and their place in the balance of nature. Ages 10 up. \$4.75.

C.L.H.



THE 1975 AREA BIG DAY BIRD COUNT
J. Earl Comfort

The Saint Louis Audubon Society sponsored Big Day Bird Roundup of Species only (no count of individuals) within a radius of 50 miles of the City of Saint Louis on May 10th was disappointing from the total count standpoint of only 155 species as compared to 180 in 1974. This was the lowest count in years, but the weather was almost perfect, compensating for the scarcity of birds. There were 9 groups known to have participated.

Top birder was Jack Van Benthuyzen with an individual list of 125 species, followed by the twosome of Kurt Wesseling, the 2nd and Kurt, the 3rd, with 113. The group of Kathryn Arhos, Bob Connerly, Joe Eads and Dave Symes had 109. Dave Jones and Ron Goetz came in with a total of 107; Dick and Mitzi Anderson- 102, and a group led by Kyrle Boldt and Mary Wiese tabbed 101. Some others known to have taken part in the count were George and Terry Barker, Jim and Marge Ruschill and the twosome of Floyd and Vi Hallett. Bob Rowe was a "group" of 1.

No outstanding bird was listed. Probably the best species listed was the black-throated blue warbler. The warblers let as a family with 32.

Connie Hath compiled the list by taking the calls of the participants.



SPRING IS SPRUNG.....

Or hatched, as in the case of this baby. It is a sight especially to be cherished, for, as the late Rachel Carson wrote, "Over increasingly large areas of the United States, spring now comes unheralded by the return of the birds, and the early mornings are strangely silent where once they were filled with the beauty of bird song."

St. Louis Area Birding During March and April
by J. Earl Comfort

The St. Louis area birding during the months of March and April yielded some excitement provoking species on the many interesting local birding expeditions. Two of the best species identified were a California gull found by Dick and Mitzi Anderson near the Alton Dam in St. Louis County and a ferruginous hawk seen by several 'listers' at the August A. Busch Wildlife Area in St. Charles County. Both rarities were found on April 5, and the hawk was seen by others at a later date.

As of May 1, we had compiled a composite area 1975 list of 248 species. Some of the most popular birding was in Forest Park in St. Louis on the first two of four Park walks and the first two of the St. Louis Shaw's Garden (Missouri Botanical Gardens) walks. These nature walks are sponsored by the St. Louis Audubon Society. Martin Schweig, now President of the St. Louis Audubon Society, was in charge at Forest Park and Helen Bowman, an outstanding birder in this area, was in charge of the walks at the Garden. The Webster Groves Nature Study Society contributed to the impressive list through their many scheduled bird trips during the period.

In addition to the Park and Garden areas, birders visited Big Creve Coeur Lake and Little Creve Coeur Lake in St. Louis County. The August A. Busch Wildlife area was the most popular for birders and other nature buffs.

The 18 inch California gull listing set a modern 'first' record and was one of the rarest area species, being far out of its normal range, which is in northwest United States, extending up into Canada. It winters on the west coast. The adult is a carbon color copy of its slightly larger cousin, the local herring gull and the smaller common area species, the ring-billed gull.

The 21 inch ferruginous hawk, which was not so far out of its range, has two color pattern phases, the dark and the light. The Busch Area hawk was of the far more common light phase. It is about 2 inches larger than the common red-tailed species. This rare beuteo hawk is considered an accidental in Missouri.

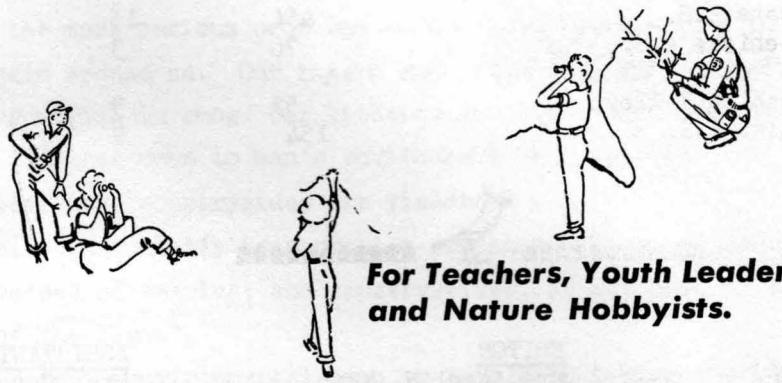




ARE YOU VACATIONING IN "THE SHINING MOUNTAINS" THIS JULY?

"The Shining Mountains" was the name the Indians gave the Rockies because of the sun glinting off perpetually snow capped peaks. But there'll be some extra glinting in the Rockies' San Juan Spur between July 15 and July 23 this year. That's when the Saint Louis Audubon Society Photography Tour camera buffs will be zeroing in on exquisite wildflowers of the High Country with closeup lenses and auxiliary flash for intimate views; will be pointing lenses in all directions to catch the spectacular vistas on film; will be breathing fragrant, clean air; will be exploring remote areas by auto caravan; will be making trips to the back-of-the-beyond by jeeps; and will be hiking exciting mountain trails. They will be having mealtime get-togethers, and will be hearing interesting speakers tell about the remarkable region. They will be based in historic old Ouray, Colorado, 1200 miles west of St. Louis.

If you happen to be out that way between July 15 and July 23, look up the Audubon Headquarters at the Circle-M Motel (right in town) and join the explorations and fun. Want a hotel-motel list and a packet packed with information about Southwestern Colorado? Just send a 9 inch by 12 inch envelope, with 30¢ in stamps affixed to it, to: COLORADO TRIP, 8410 Madeline Drive, St. Louis, Missouri, 63114.



For Teachers, Youth Leaders and Nature Hobbyists.

AUDUBON SUMMER CAMP SCHOLARSHIPS - 1975

The St. Louis Audubon Society is sponsoring eight full-tuition scholarships and two half-tuition scholarships for attendance at Audubon Camps this year. Twenty applications were received and selecting recipients from the many applicants with outstanding qualifications was a difficult task for the Committee.

Those receiving full scholarships this year are:

<u>Name</u>	<u>Organization</u>	<u>Camp Attending</u>
Mrs. Dayna Neff	Hazelwood Schools	Maine
Miss Joan Bradford	Pattonville Schools	Maine
Mrs. Sue Tieber	St. Louis Schools	Maine
Mr. George Pressey	Ferguson-Florissant Schools	Maine
Ms. Linda Knichel	St. Louis Schools	Maine
Miss Mary Elise Samson	Museum of Science	Wisconsin
Miss Mary Kenny	St. Charles Schools	Wisconsin
Mr. Larry Wegman	Herculaneum Schools	Wyoming

Those receiving half-tuition scholarships are:

Miss Melba James	Parkway Schools	Connecticut
Miss Doris Trojcak	University of Missouri-St. Louis	Connecticut

Reports from previous recipients indicate that the experiences at the Camps are extremely valuable and informative. Teachers have found that they are able to provide richer learning experiences for their students in the areas of natural history, ecology and conservation.

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KANSAS	Topeka A.S. Wichita A.S. Jayhawk A.S. McPherson County A.S. No. Flint Hills A.S. Sand Hills A.S. Smoky Hills A.S.	293 394 175 32 155 70 86	10 12 4 4 5 2 10	40 49 12 4 26 11 19	13.7 12.4 6.9 12.5 16.8 15.7 22.1
MISSOURI	Columbia A.S. ST. LOUIS A.S. Burroughs A.S. Bootheel A.A.	349 1725 956 32	11 51 38 1	42 189 117 1	12.0 11.0 12.2 3.1
NEBRASKA	Prairie A.S. La Grande Isle A.S. Big Bend A.S. Omaha A.S. Wachiska A.S.	49 60 65 454 76	10 1 1 15 3	17 1 1 67 6	34.7 1.7 1.5 14.8 7.9
OKLAHOMA	Washita Valley Tulsa A.S.	53 154	3 9	4 38	7.5 24.7



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Sustaining	<input type="checkbox"/> \$30.00 per year	Patron	<input type="checkbox"/> \$500.00 per year
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